MTS 176 FEBRUARY 1970

MARKETING & TRANSPORTATION Situation

OUTLOOK

ECONOMIC RESEARCH SERVICE • U.S.DEPARTMENT OF AGRICULTURE

MARKET FACTS

Item	Unit or base period	1968 Year	1968 4th qtr.	1969 Year	1969 3rd qtr.	1969 4th qtr.
Farm-Retail Price Spreads: 1/						
Retail cost	Dol.	1,118	1,128	1,173	1,194	1,198
Farm value	Dol.	435	434	477	492	487
Farm-retail spread	Dol.	683	694	696	702	711
Farmer's share of retail cost	Pct.	39	38	41	41	41
Retail Prices: 2/						
All goods and services (CPI)	1957-59=100	121.2	123.3	127.7	128.7	130.5
All food	1957-59=100	119.3	120.9	125.5	127.2	128.4
Food at home	1957-59=100	115.9	117.1	121.5	123.4	124.2
Food away from home	1957-59=100	136.2	139.4	144.6	145.8	149.0
Wholesale Prices: 2/						
Food 3/	1957-59=100	112.2	113.2	119.0	120.2	122.1
Cotton products	1957-59=100	105.1	105.3	105.2	105.6	106.0
Woolen products	1957-59-100	103.7	104.6	104.6	104.9	104.7
Agricultural Prices:						
Prices received by farmers	1957-59=100	108	108	114	115	117
Prices paid by farmers, interest, taxes and wage rates	1957-59=100	121	123	127	128	129
Prices of Marketing Inputs:						
Containers and packaging materials	1957-59=100	111	112	---	115	---
Fuel, power, and light	1957-59=100	103	103	---	105	---
Services 4/	1957-59=100	137	140	---	147	---
Hourly Earnings:						
Food marketing employees 5/	Dol.	2.67	2.72	2.84	2.84	2.89
Employees, private nonagricultural sector 2/	Dol.	2.85	2.92	3.04	3.06	3.11
Farmers' Marketings and Income:						
Physical volume of farm marketings	1957-59=100	126	169	126	130	170
Cash receipts from farm marketings 6/	Bil. dol.	44.4	45.0	47.4	48.0	47.5
Farmers' realized net income 6/	Bil. dol.	14.8	14.7	16.0	16.5	16.2
Industrial Production: 7/						
Food manufacturers	1957-59=100	132.7	133.6	136.8	136.9	135.6
Textile mill products	1957-59=100	151.5	153.9	153.7	153.9	152.1
Apparel products	1957-59=100	149.9	151.4	---	148.5	---
Tobacco products	1957-59=100	120.9	118.1	---	117.9	---
Retail Sales: 8/						
Food stores	Mil. dol.	72,881	18,523	76,121	19,030	19,358
Eating and drinking places	Mil. dol.	25,285	6,336	25,997	6,433	6,626
Apparel stores	Mil. dol.	19,265	4,863	20,176	5,114	5,063
Consumers' Per Capita Income and Expenditures: 9/						
Disposable personal income	Dol.	2,933	2,991	3,098	3,140	3,171
Expenditures for goods and services	Dol.	2,668	2,726	2,835	2,849	2,887
Expenditures for food	Dol.	494	498	511	510	519
Expenditures for food as percentage of disposable income	Pct.	16.8	16.6	16.5	16.2	16.4

1/ For a market basket of farm foods. 2/ Dept. of Labor. 3/ Processed foods, eggs, and fresh and dried fruits and vegetables. 4/ Includes such items as rent, property insurance and maintenance, and telephone. 5/ Average hourly earnings of production workers in food processing, and nonsupervisory workers in wholesale and retail food trades, calculated from Dept. of Labor data. 6/ Quarterly data seasonally adjusted at annual rates. 7/ Seasonally adjusted, Board of Governors of Federal Reserve System. 8/ Quarterly data seasonally adjusted, Dept. of Commerce. 9/ Seasonally adjusted annual rates, calculated from Dept. of Commerce data. Percentages have been calculated from total income and expenditure data.

MARKETING AND TRANSPORTATION SITUATION

Approved by the Outlook and Situation Board, February 11, 1970

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SUMMARY*

The retail cost of a market basket of farm-originated foods rose to an annual rate of $1,198 in the fourth quarter of 1969, up 0.3 percent from the third quarter for the smallest gain of the year. However, costs varied widely during the fourth quarter--decreasing in October, then increasing moderately in November and sharply in December. For the quarter, the retail cost averaged 6.2 percent above a year earlier, due mainly to sharp price increases for meat products, poultry and eggs, and fresh vegetables. Prices of fresh fruits declined sharply.

Gross returns to farmers (farm value) for foods in the market basket averaged $487 in the fourth quarter--down 0.9 percent from the third quarter, but 12.3 percent above a year earlier. Prices were up sharply from 1968 for meat animals, poultry and eggs, and fresh vegetables. Prices for fresh fruit decreased.

Marketing charges, as measured by the spread between the retail cost and farm value of the market basket, averaged $711 in the fourth quarter. This was 1.2 percent more than in the previous quarter and 2.3 percent more than a year earlier. Spreads increased from 1968 for all product groups except fats and oils. Beef contributed most to widening spreads.

In 1969, rising consumer demand resulting from increased personal incomes and reduced supplies of some key products, boosted prices paid for market basket foods to a record level.

Increases in the market basket from 1968 to 1969 included:

** Higher retail cost, by 4.9 percent or $55,
** Increased farm value, by 9.7 percent or $42,
** Increased marketing spread, by 1.9 percent or $13,
** Greater farmer's share of the market basket food dollar, up 2 cents to 41 cents.

Marketing costs are expected to increase at a faster rate this year than in 1969 as marketing firms adjust to pressures of rising costs. The anticipated increase in marketing spreads for the year will probably be greater than last year's 1.9 percent increase. As a result, the retail cost of market basket foods will increase even if returns to farmers for these foods change little from present levels. The rate of increase for the retail cost of the market basket will probably decline. The annual increase probably will average lower than last year's 4.9 percent.

*The summary of this report and a summary table were released to the press on February 11, 1970.

FARM-FOOD MARKET BASKET STATISTICS

Fourth Quarter 1969

Retail Cost: Reduced supplies and strong consumer demand boosted retail prices for farm-originated foods to record levels in the fourth quarter of 1969 (table 1). Although prices rose, the increase was smaller than in the second and third quarters. The rise in food prices continued a general upswing that began in late 1967.

The retail cost of the market basket of farm foods 1/ averaged $1,198 (annual rate) in the fourth quarter of 1969--up $4 or 0.3 percent from the previous quarter. Sharply higher prices for eggs and fresh vegetables provided most of the thrust and more than offset declining prices for meat products, poultry, and fresh fruits.

Retail costs of market basket foods varied widely in the fourth quarter. Total costs decreased in October, then increased moderately in November and sharply in December (table 2).

Compared with the fourth quarter of 1968, the retail cost of the market basket averaged 6.2 percent higher. Animal products and fresh vegetables accounted for most of the rise. Retail costs for other product groups except fresh fruit also rose.

Farm Value: The farm value of foods in the market basket was $487 (annual rate) in the fourth quarter--0.9 percent lower than in the preceding quarter when it was the highest for the year. Lower returns to farmers for meat animals, frying chickens, and fresh fruit offset unusually sharp increases for eggs and fresh vegetables.

Despite the decline from the previous quarter--largely seasonal--returns to farmers for market basket foods in the final quarter of 1969 were up 12.3 percent from the fourth quarter of 1968. The farm value of meat animals, eggs and fresh vegetables was up nearly one-fourth. In contrast, returns for fresh fruits were down sharply.

Farm-Retail Spread: Since consumers paid more and farmers recieved less for farm foods, the marketing spread or margin rose in the fourth quarter of 1969. The farm-retail spread for market basket foods averaged $711 in the fourth quarter--1.2 percent wider than in the previous quarter. Spreads widened for all product groups except fresh fruits and vegetables and fats and oils. They widened more for meat products than for the other product groups. Marketing spreads in the fourth quarter averaged 2.3 percent wider than a year earlier.

Farmer's Share: Farmers received an average of 41 cents of each dollar consumers spent for market basket foods in the fourth quarter last year. This was the same as in the third quarter but 3 cents more than in the fourth quarter of 1968.

Market Basket Review of 1969

Retail Cost: Rising prices received by farmers and widening marketing spreads boosted retail prices for market basket foods to record levels in 1969. Consumers paid $1,173 for these foods, up 4.9 percent from 1968 (table 3). Although animal products accounted for about three-fourths of the rise, retail costs increased for all product groups except fresh fruits. On the average, consumers paid 7.7 percent more for animal products in 1969 and 1.6 percent more for crop products.

1/ The market basket contains the average quantities of domestic, farm-originated food products purchased annually per household in 1960 and 1961 by wage-earners and clerical-worker families and single workers living alone. Its retail cost is calculated from retail prices published by the Bureau of Labor Statistics. The retail cost of the market basket foods is less than the cost of all foods bought per household, since it does not include costs of meals in eating places, imported foods, seafoods or other foods not of farm origin. The farm value is the gross return to farmers for the farm products equivalent to foods in the market basket. The farm-retail spread--difference between the retail cost and farm value--is an estimate of the total gross margin received by marketing firms for assembling, processing, transporting, and distributing the products in the market basket.

Table 1.--The market basket of farm foods by product group: Retail cost, farm value, and farm-retail spread, October-December 1969, July-September 1969, and October-December 1968

Items	October-December 1969	July-September 1969	October-December 1968	Change: October-December 1969 from July-September 1969		Change: October-December 1969 from October-December 1968	
	Dollar	Dollar	Dollar	Dollar	Percent	Dollar	Percent
	Retail cost 1/						
Market basket	1,197.95	1,194.08	1,128.49	3.87	0.3	69.46	6.2
Meat products	369.28	371.80	327.97	-2.52	-.7	41.31	12.6
Dairy products	211.88	209.03	204.98	2.85	1.4	6.90	3.4
Poultry	51.20	53.23	47.50	-2.03	-3.8	3.70	7.8
Eggs	50.25	43.11	44.08	7.14	16.6	6.17	14.0
Bakery and cereal products	174.78	172.95	170.76	1.83	1.1	4.02	2.4
Fresh fruits	46.08	55.02	51.16	-8.94	-16.2	-5.08	-9.9
Fresh vegetables	78.94	74.61	70.99	4.33	5.8	7.95	11.2
Processed fruits and vegetables	125.17	125.29	123.64	-.12	-.1	1.53	1.2
Fats and oils	38.17	37.78	37.70	.39	1.0	.47	1.2
Miscellaneous products	52.20	51.26	49.71	.94	1.8	2.49	5.0
	Farm value 2/						
Market basket	487.39	491.87	434.03	-4.48	-0.9	53.36	12.3
Meat products	205.20	217.39	168.59	-12.19	-5.6	36.61	21.7
Dairy products	103.14	101.02	98.26	2.12	2.1	4.88	5.0
Poultry	23.93	27.11	22.28	-3.18	-11.7	1.65	7.4
Eggs	35.41	28.96	28.22	6.45	22.3	7.19	25.5
Bakery and cereal products	33.85	33.16	32.36	.69	2.1	1.49	4.6
Fresh fruits	12.49	15.39	17.58	-2.90	-18.8	-5.09	-29.0
Fresh vegetables	28.16	22.98	23.22	5.18	22.5	4.94	21.3
Processed fruits and vegetables	26.00	26.99	24.95	-.99	-3.7	1.05	4.2
Fats and oils	10.11	9.68	9.40	.43	4.4	.71	7.6
Miscellaneous products	9.10	9.19	9.17	-.09	-1.0	-.07	-.8
	Farm-retail spread						
Market basket	710.56	702.21	694.46	8.35	1.2	16.10	2.3
Meat products	164.08	154.41	159.38	9.67	6.3	4.70	2.9
Dairy products	108.74	108.01	106.72	.73	.7	2.02	1.9
Poultry	27.27	26.12	25.22	1.15	4.4	2.05	8.1
Eggs	14.84	14.15	15.86	.69	4.9	-1.02	-6.4
Bakery and cereal products	140.93	139.79	138.40	1.14	.8	2.53	1.8
Fresh fruits	33.59	39.63	33.58	-6.04	-15.2	.01	3/
Fresh vegetables	50.78	51.63	47.77	-.85	-1.6	3.01	6.3
Processed fruits and vegetables	99.17	98.30	98.69	.87	.9	.48	.5
Fats and oils	28.06	28.10	28.30	-.04	-.1	-.24	-.8
Miscellaneous products	43.10	42.07	40.54	1.03	2.4	2.56	6.3

1/ Retail cost of average quantities purchased annually per household in 1960-61 by urban wage earner and clerical-worker families and single workers living alone, calculated from retail prices collected by the Bureau of Labor Statistics.

2/ Payment to farmer for equivalent quantities of farm products minus imputed value of byproducts obtained in processing.

3/ Less than 0.05 percent.

Table 2.--The market basket of farm foods: Retail cost, farm value, farm-retail spread, and farmer's share of retail cost, averages 1947-49 and 1957-59, annual 1960-69, monthly 1968-69 1/

Year and month	Retail cost	Farm value	Farm-retail spread	Farmer's share
	Dollars	Dollars	Dollars	Percent
Average:				
1947-49	890	441	449	50
1957-59	983	388	595	39
1960	991	383	608	39
1961	997	380	617	38
1962	1,006	384	622	38
1963	1,013	374	639	37
1964	1,014	374	640	37
1965	1,038	408	630	39
1966	1,095	443	652	40
1967	1,080	414	666	38
1968	1,118	435	683	39
1969 2/	1,173	477	696	41
1968 3/				
January	1,098	418	680	38
February	1,100	426	674	39
March	1,104	432	672	39
April	1,110	439	671	40
May	1,114	435	679	39
June	1,117	436	681	39
July	1,124	451	673	40
August	1,132	439	693	39
September	1,128	443	685	39
October	1,131	435	696	38
November	1,125	430	695	38
December	1,129	437	692	39
1969 2/ 3/				
January	1,138	446	692	39
February	1,136	452	684	40
March	1,141	461	680	40
April	1,150	465	685	40
May	1,157	471	686	41
June	1,177	495	681	42
July	1,190	497	693	42
August	1,197	495	702	41
September	1,196	483	713	40
October	1,186	476	710	40
November	1,194	489	705	41
December	1,214	497	717	41

1/ Retail cost of average quantities purchased annually per household in 1960-61 by urban wage-earner and clerical-worker families and single workers living alone, calculated from retail prices collected by the Bureau of Labor Statistics. Data for earlier years are published in Farm-Retail Spreads for Food Products 1947-64, ERS-226, April 1965. 2/ Preliminary. 3/ Annual rates.

Table 3.--The market basket of farm foods by product groups: Retail cost, farm value, and farm-retail spread, annual average 1968 and 1969

Items	1969	1968	Change: 1968 to 1969	
	Dollar	Dollar	Dollar	Percent
	Retail cost 1/			
Market basket	1,172.87	1,117.80	55.07	4.9
Meat products	355.79	324.58	31.21	9.6
Dairy products	208.27	201.96	6.31	3.1
Poultry	50.67	47.83	2.84	5.9
Eggs	44.78	38.14	6.64	17.4
Bakery and cereal products	172.77	169.61	3.16	1.9
Fresh fruits	50.38	53.00	-2.62	-4.9
Fresh vegetables	76.35	72.65	3.70	5.1
Processed fruits and vegetables	124.82	122.96	1.86	1.5
Fats and oils	37.89	37.88	.01	2/
Miscellaneous products	51.15	49.19	1.96	4.0
	Farm value 3/			
Market basket	477.21	435.07	42.14	9.7
Meat products	201.60	171.86	29.74	17.3
Dairy products	100.78	96.68	4.10	4.2
Poultry	25.07	23.56	1.51	6.4
Eggs	29.79	23.39	6.40	27.4
Bakery and cereal products	33.47	33.06	.41	1.2
Fresh fruits	15.39	18.72	-3.33	-17.8
Fresh vegetables	25.22	23.84	1.38	5.8
Processed fruits and vegetables	26.61	25.04	1.57	6.3
Fats and oils	10.07	9.92	.15	1.5
Miscellaneous products	9.21	9.00	.21	2.3
	Farm-retail spread			
Market basket	695.66	682.73	12.93	1.9
Meat products	154.19	152.72	1.47	1.0
Dairy products	107.49	105.28	2.21	2.1
Poultry	25.60	24.27	1.33	5.5
Eggs	14.99	14.75	.24	1.6
Bakery and cereal products	139.30	136.55	2.75	2.0
Fresh fruits	34.99	34.28	.71	2.1
Fresh vegetables	51.13	48.81	2.32	4.8
Processed fruits and vegetables	98.21	97.92	.29	.3
Fats and oils	27.82	27.96	-.14	-.5
Miscellaneous products	41.94	40.19	1.75	4.4

1/ Retail cost of average quantities purchased annually per household in 1960-61 by urban wage earner and clerical-worker families and single workers living alone, calculated from retail prices collected by the Bureau of Labor Statistics.
2/ Less than 0.05 percent.
3/ Payment to farmer for equivalent quantities of farm products minus imputed value of byproducts obtained in processing.

The rise in the retail cost of the market basket foods has accelerated in recent years. Since 1964, the retail cost has risen 16 percent, compared with 3 percent from 1957-59 to 1964 (table 2).

Farm Value: The farm value of foods in the market basket rose 9.7 percent in 1969 from the 1968 level (table 3). Farm values were higher for all product groups except fresh fruit. Increases in prices received by farmers were particularly sharp for meat animals and eggs. These products accounted for most of the increase in the total farm value of the market basket.

The farm value of market basket foods has risen 28 percent since 1964. It rose in both 1965 and 1966, mainly because of reduced supplies of meat animals. After declining in 1967, it increased sharply in 1968 and again in 1969. The increase in farm value last year was caused in part by reduced supplies of meat animals and eggs and by increased demand spurred by rising consumer incomes.

Farm-Retail Spread: The spread between the retail cost and farm value of the market basket averaged 1.9 percent wider in 1969 than in 1968. Most of the increase occurred in the second half. The increase in the marketing spread accounted for about one-fourth of the increase in the retail cost of the market basket.

The increase in the marketing spread in 1969 reflected a general increase in operating costs of food marketing firms. Earnings of employees in food marketing averaged $2.83 per hour in 1969--6 percent above 1968. Hourly earnings increased by about the same rate in 1968, by 5 percent in 1967, and 4 percent in 1966. Improvements in output per man-hour may have cushioned the rise in unit labor cost. Prices of containers, packaging materials, and other goods and services (not including raw materials and labor) also averaged higher in 1969.

After-tax profits of food marketing corporations averaged 2.4 percent of sales in the first 3 quarters of 1969--about the same as in the same period of 1968, according to data compiled by the Federal Trade Commission and Securities Exchange Commission. After-tax profits of 15 leading retail food chains averaged 1 percent of sales in the first 9 months of 1969, unchanged from a year earlier.

Except for 1965, the farm-retail spread increased every year since 1950. Annual increases were smaller for marketing spreads in the 1960's than in the 1950's--1.4 percent compared with 2.7 percent.

Farmer's Share: Increases in farm value accounted for about three-fourths of the rise in the retail cost of market basket foods last year. As a result, the farmer's share of the dollar consumers spent for these foods in retail food stores averaged 41 cents, 2 cents more than in 1968 (table 2). In the 1960's, the annual average farmer's share ranged from 37 to 41 cents.

Outlook for 1970: Marketing costs are expected to increase at a faster rate this year than in 1969 as marketing firms adjust to pressures of rising costs. The anticipated increase in marketing spreads for the year will probably be greater than last year's 1.9 percent increase. As a result, retail costs of market basket foods will increase even if returns to farmers for these foods change little from present levels. The rate of increase for the retail cost of the market basket will probably decline. The annual increase probably will average lower than last year's 4.9 percent.

Operating costs of food marketing firms likely will average higher in 1970 than in 1969. Hourly earnings of food marketing employees will probably continue to rise, and the rise is not likely to be entirely offset by improvements in output per man-hour. Prices of most inputs bought by marketing firms are also expected to rise.

Commodity Highlights

Beef: Slightly larger per capita supplies of beef contributed to lower prices at both farm and retail levels in the fourth quarter of 1969. Retail prices for Choice beef averaged 96.3 cents per

pound in the fourth quarter--down 4.7 cents from the record of the previous quarter (table 4). The farm value of Choice beef declined 4.8 cents to 58.0 cents. As a result, the farm-retail spread averaged 0.1 cent wider than the prior record of 38.2 cents in the third quarter. Marketing spreads averaged more than 8 cents per pound wider in the second half of 1969 than in the first half or in the 4 quarters of 1968. Practically all of the increase in the spread occurred in the carcass-retail margin.

Change in Terminology

"Carcass value" shown in table 4 was formerly called "wholesale value." The change in terminology was made to more accurately describe the beef value used to compute beef price spreads. Thus, wholesale-retail spread becomes carcass-retail spread and farm-wholesale spread changes to farm-carcass spread.

The term wholesale still accurately describes the value used to compute price spreads for pork and lamb.

Continued strong consumer demand and wider marketing margins continued to keep retail beef prices higher than a year ago. Retail prices for Choice beef averaged 8.2 cents per pound higher in the fourth quarter of 1969 than a year earlier. The farm value of beef was up only 0.2 cent. Thus, the farm-retail spread averaged 8.0 cents wider than a year earlier. All of the increase was in the carcass-retail margin.

Eggs: Production of eggs in the fourth quarter of 1969 averaged slightly higher than in either the previous quarter or a year earlier. Despite increased supply, strong demand for eggs boosted prices sharply at both farm and retail levels. Retail prices for Grade A large eggs rose about 10 cents per dozen in the fourth quarter, reflecting an increase of around 9 cents per dozen in farm value (table 11, p. 24). Both retail prices and farm value were 9 to 10 cents per dozen higher in the fourth quarter of 1969 than a year earlier.

The farm-retail spread averaged 20.6 cents in the fourth quarter--1.0 cent more than in the third quarter but 1.4 cents less than a year earlier (table 12, p. 25).

In December 1969 egg prices at both farm and retail levels reached highs for the decade. The marketing spread, however, remained relatively stable.

Fresh Vegetables: Short supplies of several fresh market vegetables caused upward pressure on both farm and retail prices in the fourth quarter last year, but changes in farm-retail spreads were minor. The retail cost of fresh vegetables in the market basket was up 5.8 percent from the third quarter compared with a 22.5 percent increase in farm value. In contrast, marketing spreads decreased 1.6 percent. Lettuce, tomatoes, cabbage, cucumbers, and green peppers showed the largest increase in farm and retail prices.

Compared with a year ago, the retail cost of the fresh vegetable groups averaged 11.2 percent higher, farm value 21.3 percent higher, and farm-retail spreads 6.3 percent wider.

Fresh Fruit: In contrast to generally higher food prices, the retail cost of the fresh fruit group in the market basket averaged 16 percent lower in the fourth quarter of 1969 than in the previous quarter. Farm value was down 19 percent and the marketing spread decreased 15 percent. Responding to a 24 percent increase in production, prices and marketing spreads for apples showed the sharpest decrease and accounted for much of the decline for the group. Decreases for grapefruit were next in importance.

Table 4.--Beef, pork, and lamb: Retail price, carcass value, farm value, farm-retail spread, and farmer's share of retail price, annual 1967-69, quarterly 1968-69 1/

Date	Retail price per pound 2/	Carcass value 3/	Gross farm value 4/	Byproduct allowance 5/	Net farm value 6/	Farm-retail spread: Total	Farm-retail spread: Carcass-retail	Farm-retail spread: Farm-Carcass	Farmer's share
	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Percent
					Beef, Choice grade				
1967	82.6	59.4	57.0	4.0	53.0	29.6	23.2	6.4	64
1968	86.6	63.1	60.5	3.8	56.7	29.9	23.5	6.4	65
1969	96.3	68.7	66.9	4.7	62.2	34.1	27.6	6.5	65
1968									
Jan.-Mar. ...	85.0	62.0	59.2	3.6	55.6	29.4	23.0	6.4	65
Apr.-June ...	85.7	62.3	59.6	3.7	55.9	29.8	23.4	6.4	65
July-Sept. ..	87.5	64.1	61.5	3.8	57.7	29.8	23.4	6.4	66
Oct.-Dec. ...	88.1	64.1	61.8	4.0	57.8	30.3	24.0	6.3	66
1969									
Jan.-Mar. ...	90.1	66.1	63.7	4.0	59.7	30.4	24.0	6.4	66
Apr.-June ...	97.9	74.6	73.3	4.8	68.5	29.4	23.3	6.1	70
July-Sept. ..	101.0	69.7	67.9	5.1	62.8	38.2	31.3	6.9	62
Oct.-Dec. ...	96.3	64.3	62.8	4.8	58.0	38.3	32.0	6.3	60
					Pork				
1967	67.2	51.5	37.3	2.5	34.8	32.4	15.7	16.7	52
1968	67.4	51.7	36.7	2.2	34.5	32.9	15.7	17.2	51
1969	74.3	58.5	45.5	3.2	42.3	32.0	15.8	16.2	57
1968									
Jan.-Mar. ...	66.4	50.4	35.9	2.2	33.7	32.7	16.0	16.7	51
Apr.-June ...	66.9	51.8	36.9	2.1	34.8	32.1	15.1	17.0	52
July-Sept. ..	69.1	53.5	39.0	2.2	36.8	32.3	15.6	16.7	53
Oct.-Dec. ...	67.3	50.9	34.7	2.1	32.6	34.7	16.4	18.3	48
1969									
Jan.-Mar. ...	68.5	52.8	38.4	2.6	35.8	32.7	15.7	17.0	52
Apr.-June ...	71.9	56.5	43.5	2.9	40.6	31.3	15.4	15.9	56
July-Sept. ..	77.6	62.1	50.3	3.5	46.8	30.8	15.5	15.3	60
Oct.-Dec. ...	78.9	62.7	49.8	3.8	46.0	32.9	16.2	16.7	58
					Lamb, Choice grade				
1967	87.4	62.8	54.4	5.8	48.6	38.8	24.6	14.2	56
1968	93.6	68.2	60.0	6.4	53.6	40.0	25.4	14.6	57
1969	101.8	74.8	66.9	7.6	59.3	42.5	27.0	15.5	58
1968									
Jan.-Mar. ...	91.2	64.6	57.3	6.6	50.7	40.5	26.6	13.9	56
Apr.-June ...	93.8	71.5	62.2	6.5	55.7	38.1	22.3	15.8	59
July-Sept. ..	94.6	67.7	60.1	6.2	53.9	40.7	26.9	13.8	57
Oct.-Dec. ...	95.0	69.0	60.3	6.3	54.0	41.0	26.0	15.0	57
1969									
Jan.-Mar. ...	96.7	71.6	64.4	8.2	56.2	40.5	25.1	15.4	58
Apr.-June ...	100.8	77.2	68.0	8.0	60.0	40.8	23.6	17.2	60
July-Sept. ..	104.7	76.3	67.6	6.9	60.7	44.0	28.4	15.6	58
Oct.-Dec. ...	105.2	74.2	67.6	7.3	60.3	44.9	31.0	13.9	57

1/ Data for beef and pork have been extensively revised. For discussion of the revision see article in the November 1969 issue of Marketing and Transportation Situation. 2/ Estimated weighted average price of retail cuts. 3/ For quantity equivalent to 1 lb. of retail cuts: Beef: 1.41 lb. or carcass beef; pork, 1.07 lb. of wholesale cuts; lamb, 1.18 lb. of carcass lamb. 4/ Payment to farmer for quantity of live animal equivalent to 1 lb. of retail cuts: Beef, 2.28 lb.; pork, 1.97 lb.; lamb, quantity varies by months from 2.42 lb. in May to 2.48 lb. in October. 5/ Portion of gross farm value attributed to edible and inedible byproduct. 6/ Gross farm value minus byproduct allownace.

LABOR PRODUCTIVITY IN FOOD MANUFACTURING

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Civilian consumers in the United States spent about 15 percent of their disposable personal income for domestic farm food products in 1969 (for all foods, expenditures were 16.5 percent). Domestic farm food expenditures ($96 billion) can be divided into two parts: (1) the marketing bill ($64 billion) which is the cost of assembling, transporting, processing and distributing the products to consumers and (2) the farm value ($32 billion) which is the payment to farmers for their products. Labor costs are the largest single item in the total domestic farm food marketing bill.

Labor costs and hourly earnings have parallelled a continued upward trend in the marketing bill. The importance of labor costs in the marketing bill has focused attention on labor productivity in farm food marketing.

Labor productivity--output per man-hour--in factories processing farm-originated foods increased 59 percent from 1954 to 1968, according to recent estimates (table 5). Output of factories--value added in constant dollars--processing farm foods increased 50 percent from 1954 to 1968. Factory output and output per man-hour have increased each year.

The larger increase in output per man-hour than in total output reflected a 6 percent decline in total man-hours worked in food manufacturing during 1954-68. However, the poultry and egg, processed fruits and vegetables, and sugar industries increased the number of man-hours.

During 1954-68, output per man-hour in food manufacturing increased at an average annual rate of 3.6 percent with gains in all food manufacturing industries (table 6). The grain mill industry had the largest average annual increase, 4.5 percent. Other industries having above-average increases were sugar, meat products, and dairy products. Bakery products had the smallest increase, 2.9 percent.

Output for all food processing industries increased at an annual rate of 2.8 percent for 1954-68. The poultry and egg industry had the largest increase (6.7 percent). Other industries having above-average increases in output were processed fruits and vegetables, grain-mill products, sugar, and confectionery products. The bakery industry had the smallest annual increase.

The average annual rate of growth of output per man-hour in 1954-68 was higher for food manufacturing industries (3.6 percent) than for all manufacturing industries (3.1 percent) and for the entire nonfarm sector of the economy (2.8 percent). 1/

1/ Average annual rates of growth in output per man-hour worked in the private nonfarm sector were computed from annual estimates reported in Indexes of Output Per Man-hour for the Private Economy, 1947-68, BLS, U.S. Dept. Labor, March 1968.

Table 5.--Output per man-hour in establishments manufacturing farm-originated foods, by industry, 1954-68 1/

(1957-59=100)

Year	All Foods 2/ Output	All Foods 2/ Man-hours	All Foods 2/ Output per man-hour	Meat products 3/ Output	Meat products 3/ Man-hours	Meat products 3/ Output per man-hour	Poultry and eggs 4/ Output	Poultry and eggs 4/ Man-hours	Poultry and eggs 4/ Output per man-hour
1954..	88	99	89	89	105	85	68	86	79
1955..	91	100	91	97	107	91	69	88	78
1956..	97	103	94	103	111	93	84	96	87
1957..	97	101	96	101	105	96	89	97	92
1958..	99	99	100	97	98	99	101	100	101
1959..	104	100	104	102	98	105	110	104	106
1960..	107	99	108	107	97	111	109	105	104
1961..	110	98	112	108	93	116	129	114	114
1962..	114	97	118	110	92	120	128	107	120
1963..	116	94	124	116	91	128	134	113	119
1964..	122	96	127	124	97	129	141	116	122
1965..	122	94	130	121	90	134	150	120	125
1966..	125	93	134	126	88	143	163	126	129
1967..	128	93	137	132	89	148	176	132	134
1968..	131	93	141	135	89	152	170	131	130

Year	Dairy products 5/ Output	Dairy products 5/ Man-hours	Dairy products 5/ Output per man-hour	Processed fruits and vegetables 6/ Output	Processed fruits and vegetables 6/ Man-hours	Processed fruits and vegetables 6/ Output per man-hour	Grain-mill products 7/ Output	Grain-mill products 7/ Man-hours	Grain-mill products 7/ Output per man-hour
1954..	83	98	84	85	94	90	87	102	85
1955..	88	101	87	90	95	95	88	106	83
1956..	94	102	92	102	99	103	92	104	88
1957..	97	101	97	97	100	97	95	101	95
1958..	100	100	100	98	99	98	100	99	101
1959..	103	99	104	105	101	104	105	101	104
1960..	104	96	108	112	103	109	109	101	108
1961..	106	94	112	121	104	116	114	100	114
1962..	108	91	119	130	104	125	119	99	120
1963..	110	86	127	126	102	123	125	93	135
1964..	113	86	131	134	104	129	129	94	137
1965..	114	83	137	137	108	128	129	93	139
1966..	113	81	141	145	111	131	131	92	143
1967..	112	80	141	151	111	135	131	91	145
1968..	113	78	144	156	109	142	134	93	144

1/ Output per man-hour indexes were computed from unrounded indexes of man-hours worked by all employees and factory output. Man-hour estimates for 1954-67 are based on data published by the Bureau of Census. Estimates for 1968 were interpolated from employment statistics published by BLS. Output estimates are based on value added indexes published by the Bureau of Census projected for non-census years by physical output data published by the USDA. Data for 1964-68 are preliminary. 2/ Establishments primarily engaged in manufacturing shortening and cooking oils, margarine, macaroni, and spaghetti, as well as industry groups shown on this table. 3/ Meat-packing plants and establishments specializing in prepared meat products. 4/ Poultry-dressing plants and establishments specializing in processed egg products. 5/ Plants engaged in processing fluid milk and cream, butter, natural cheese, concentrated milk, ice cream and ices, and special dairy products. (cont.)

Table 5.--(cont.) Output per man-hour in establishments manufacturing farm-originated foods, by industry, 1954-68

(1957-59=100)

Year	Output	Man-hours	Output per man-hour	Output	Man-hours	Output per man-hour	Output	Man-hours	Output per man-hour
	Bakery products 8/			Sugar 9/			Confectionery 10/		
1954...	91	97	94	89	104	86	86	101	85
1955...	92	98	94	80	97	82	85	103	83
1956...	95	100	95	87	95	92	90	105	85
1957...	96	100	96	94	98	96	96	101	95
1958...	101	100	101	98	101	97	100	100	100
1959...	103	101	102	108	101	107	104	99	105
1960...	104	101	103	110	99	111	107	99	108
1961...	105	99	106	118	102	115	110	100	110
1962...	108	98	110	123	98	126	111	101	110
1963...	110	92	120	145	107	135	116	96	122
1964...	113	92	122	151	116	131	121	98	123
1965...	115	91	126	140	108	130	124	98	126
1966...	115	90	127	143	105	136	131	99	132
1967...	115	88	131	140	101	139	134	100	134
1968...	120	89	135	165	105	158	135	98	137

6/ Establishments primarily engaged in canning and freezing fruits and vegetables and manufacturing pickles and sauces. 7/ Establishments primarily engaged in manufacturing flour and meal, cereal products, rice milling, blended and prepared flour, and corn wet milling products. 8/ Establishments primarily engaged in manufacturing biscuits and crackers, wholesale bakeries, grocery chain bakeries, home service bakeries, and retail multi-outlet bakeries (excluding nonbaking outlets except those retail units at the same location as the bakery). 9/ Establishments primarily engaged in manufacturing raw cane sugar from domestically grown cane and plants mainly engaged in the production of beet sugar. 10/ Establishments primarily engaged in manufacturing candy and other confections.

Table 6.--Average annual change in output per man-hour, output, and total man-hours in manufacturing farm-originated foods, by industry, 1954-68

Industry	Output	Man-hours	Output per man-hour
	Percent		
All farm foods	2.8	-0.7	3.6
Meat products	2.7	-1.5	4.3
Poultry and eggs	6.7	3.0	3.7
Dairy products	2.0	-2.0	4.2
Processed fruits and vegetables	4.3	1.1	3.2
Grain-mill products	3.4	-1.0	4.5
Bakery products	1.9	-0.9	2.9
Sugar products	5.0	0.6	4.4
Confectionery products	3.4	-0.1	3.6

THE EGG INDUSTRY IN THE 1970'S

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More extensive changes appear imminent for the egg industry than were apparent at the beginning of the past few decades. There is fairly general agreement on the direction of change in the egg industry during the 1970's, but opinion differs on the rate at which changes will occur. Several recent papers were helpful in preparing this article. 1/

Egg Production and Use

While broiler and turkey production, both in total and per capita, is expected to rise significantly, few economists make similar predictions for eggs. Egg production in the 1970's and beyond is likely to increase a bit less than the percentage increase in population. Thus, per capita consumption in the 1970's may be slightly less than the levels of recent years, tending to level off toward 300 eggs per person. But even this level of consumption cannot be held without positive efforts.

The main shifts in the 1970's will be in the form in which consumers use eggs. The proportion of eggs used in shell form will gradually decline from the present level of nearly 90 percent toward 67 percent by the end of the 1970's. The use of eggs in manufactured products will rise gradually from the present 10 percent to about 15 percent. But there will be a substantial growth in the use of eggs in prepared and convenience forms, such as egg mixes, both for household and institutional use. At present, such forms are not common, but by the end of the 1970's they may account for well over 15 percent. Industrial uses are likely to absorb most of the eggs with damaged shells and below Grade A. These changes are likely to continue and intensify in the 1980's.

There also may be some change in where eggs are produced. Regionally, a slowing is expected for some of the trends underway since the 1950's. The South will show further gains, but elsewhere the relative declines will slow down and stabilize. Thus, there will still be some interregional movements of eggs from the South and Midwest to the Northeast and from the West Coast to the Mountain region for years to come. But even the areas which remain deficit will produce a major share of their requirements.

Interregional shifts in egg production are not likely to be spectacular, but those within regions may be more striking. To a considerable extent the forces for changes within regions will originate outside the egg industry. Zoning regulations, tax problems, and more attention to systematic ranking of the use of land for residential, industrial, public, agricultural and recreational purposes will force the egg industry to migrate. Problems from noise, waste disposal, and possible pollution can be handled more readily. Land requirements are less critical for egg production now. Moreover, preservation of quality can be easily accomplished from a technical standpoint and this at least dilutes the advantages of nearness to markets. Final choices on relocation will be somewhat influenced by entrepreneurial considerations, but there will be areas of geographic concentration. This will be related in part to the needs for private and public services for owners, employees, and their families of a quality fully equal to those available in metropolitan and suburban areas. It will also be influenced by the requirements for enhanced efficiency of operations in the egg industry.

1/ Haffert, W. A., Jr., A Dazzling Decade of Change, paper, 1969 Agri-Business Conference, St. Louis, Mo., Nov. 6-7, 1969. Reese, T. M., Changing Market Needs in the Poultry Industry, paper, 1969 Agri-Business Conference, St. Louis, Mo., Nov. 6-7, 1969. Jones, H. B., Processed Egg Products: A Marketing Opportunity, USDA, Econ. Res. Ser., ERS-405, Feb. 1969. Rogers, G. B., W. W. Gallimore, and F. L. Faber, Shifts in the Location of Egg, Broiler, and Turkey Production, USDA, Econ. Res. Ser., PES-254, Nov. 1968. Rogers, G. B. and F. M. Conley, Marketing Poultry and Eggs, USDA, Econ. Res. Ser., ERS-324, Oct. 1966.

Within regions, the egg industry must increasingly relocate in areas of open farmland and other undeveloped areas somewhat removed from population centers, but this does not imply individual and small units widely scattered.

Industry Structure and Practices

There will be larger units, greater concentration of ownership, and almost universally prevalent coordination of producing, input-supplying, processing, and marketing activities. Some skillful independent producers can survive if they are large enough to perform several of these functions, or if they can retain a piece of shrinking local preference markets--even with smaller price premiums. But for most, the advantages of scale and joint efforts will prevail and the flock manager generally will be only one spoke in the wheel. Increasingly, he will be on contract, a corporation employee, or a partner in a coordinated group.

Specialization, too, will be the rule rather than the exception. But it will be specialization within coordinated complexes and thus distinct from the independent specialization characteristic of earlier decades. Nevertheless, a relatively small number of private firms or cooperatives will effectively control most of the commercial egg output by the late 1970's. This development is already in evidence and will proceed rapidly in the next few years. With this development, the industry can expect closer scrutiny from antitrust enforcement and regulatory agencies. Hopefully, a rule of reason will prevail which will both preserve high efficiency and protect the public interest.

The egg industry must both compete for the consumer's dollar by not overpricing its products and by finding better ways to assure a more equitable distribution of returns to participants. It cannot afford an image of monopoly or oligopoly, or inequities in the distribution of returns.

Cage production has already displaced much floor production and this will proceed even more rapidly. The definition of small flocks has changed drastically during the 1960's. In the 1970's, many flocks that are presently considered medium-sized to large will appear relatively small. This is because the number of birds handled per man will continue to rise very substantially. Small flocks will disappear insofar as commercial egg markets are concerned, even in the Midwest where flocks under 10,000 birds still account for a larger share of production than elsewhere.

The increasing concentration of production, large units, and the greater attention required by waste disposal operations will have yet another effect. Secondary products will be handled mechanically, making more feasible and economical their recovery for existing and new uses. These may include feathers and offal as feed ingredients, and chicken manure as a source of commercial nitrogen.

The egg industry must be prepared to live in the age of consumerism. This means more attention to quality and health problems and, preferably, acting before such matters are raised by those outside the industry. Nationwide Federal-State standards for egg sizes, grades, and quality should come early in the 1970's. Mandatory Federal-State inspection of at least commercial processed and shell eggs is another likely and early development. Under adverse circumstances, eggs are one of the potential carriers of salmonella. The egg industry itself has no control over recontamination by food handlers, but it can take steps to minimize original contamination. The egg industry was hurt by the cholesterol scare in the 1960's. Now iron deficiency in diets is a problem. Thus, it may be necessary to reduce cholesterol and add even more iron. Technology may become available to solve these kinds of problems. The current reevaluations of pesticides, insecticides, and antibiotics will also cause some short-run problems and require adjustments in practices.

Egg Pricing

Egg pricing, a persistent problem, reached a crisis stage in the 1960's. Early in the 1970's improvements in egg pricing will be gradual and modest. By the late 1970's, the pricing system will

be considerably modified. The growing use of eggs for manufacturing and in further-processed products will serve to remove much of the need for short-run price fluctuations. With developing concentration in the industry, there may be more branded products and a move toward administered prices. Firms will be able to announce prices in advance and hold to them with general success over longer time periods.

Returns to egg production and other related activities will become more stable in the 1970's. In part, this will reflect more stable egg prices, but also will be due to more equal bargaining power and to investment and output decisions more nearly geared to a rate of return comparable to that from other agricultural and nonagricultural alternatives.

Eggs could be priced by the pound in the 1970's if some technical problems can be solved. Eggs, even at current high prices, are a good buy by the pound. Even if the industry does not price and sell eggs that way in the near future, it could do more to get the message across that eggs are a good value.

The industry has a backlog of unapplied technology to aid in achieving even greater efficiencies and this will preserve favorable price relationships in comparison to other food items throughout the 1970's.

Changes are Inevitable

Changes likely to get underway in the 1970's will not have run their course before the decade ends. Changes will bring problems, but awareness of impending changes and early accommodation to them will help considerably to minimize the impacts from such problems. The egg industry is already on the road to agribusiness or even big business. It will become difficult to think about the egg industry alone for the interrelationships between the egg industry and other parts of the economy will be impossible to escape.

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MERGERS AND ACQUISITIONS IN THREE FOOD INDUSTRIES

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Considerable attention has focused upon merger and acquisition activities of corporate business firms, including food industries, in recent years. An extensive search of trade magazines and financial publications was made to identify and present the trends in such activity. These data update a series presented earlier for the dairy and retail grocery industries. 1/ For this article, we included the meat processing and packing industry for the period 1959-67.

A merger joins 2 or more companies. Such a "business marriage" frequently results in significant changes which affect both stockholders and management. The market context will influence the impact a particular merger eventually will have upon the public.

Profit is considered to be an important merger motive, but so is company growth, management prestige, tax shelter, personal power, and increased efficiency. The need to join technological "know how," develop new products, and to minimize the cost of entering into new markets often combine with other motives to encourage firms to merge.

Mergers were extensive in the 1947-67 period. The meatpacking industry averaged 10 acquisitions per year, 2/ 1947-58, and 28 per year, 1959-67. For the same periods, the dairy processing industry averaged 54 per year for the earlier period, and 56 for the latter. In contrast, the retail grocery industry averaged 82 annually in 1952-58, but 47 in 1959-67.

Mergers and acquisitions may be hortizontal, vertical, or conglomerate in character. A combination of all 3 forms in a single merger is possible. A horizontal merger joins 2 firms with operations in the same industry and at the same level of operation. Horizontal mergers always eliminate at least one company from a market. Between 1959 and 1967, horizontal mergers were by far the most prevalent type in the 3 industries studied (table 7).

Vertical mergers and acquisitions combine 2 firms within the same industry, but at different levels in the production-marketing chain. For instance, a manufacturer may acquire a retail store specializing in the sale of his type of products. Conglomerate mergers and acquisitions are combinations of different industries with distinctly different economic (production) functions, and sometimes different levels of marketing, all operating under the same corporate roof.

Data for this article were obtained from several financial journals and industry trade publications. 3/ Some mergers and acquisitions (particularly small ones) are missed by each of these media. However, Nelson and Mueller have shown that the same types of media yield sufficiently similar results to enable cross-industry comparisons. 4/

1/ Nelson, P. E. and Paul, A. B.; Ownership Changes by Purchase and Merger in Selected Food Industries, Market Research Report No. 369, U.S. Dept. of Agriculture, 1959, p. 15.

2/ National Commission on Food Marketing, Organization and Competition in the Livestock and Meat Industry. Technical Study No. 1, June 1966, p. 27.

3/ For instance: The Conference Board Business Management Record, Chain Store Age, Directory of Supermarket and Grocery Chain Stores, Dunn and Bradstreet Reference Book, Food Topics, Mergers and Acquisitions, Moody's Industrial Manual, Poor's Register of Corporations, Supermarket Merchandising, and Twelve Thousand Leading U.S. Corporations.

4/ Paul E. Nelson, Jr. and W. E. Mueller, "A Note on the Sources of Acquisitions Data," The Review of Economics and Statistics, XLIII (3) 300, Aug., 1961. " . . . when trade sources, as well as industrial manuals are used, secondary sources provide reliable data on purchase or merger in specific industries".

Table 7.--Mergers and acquisitions in the meat, dairy, and retail grocery industries, 1959-67

Industry and year	Total	Type: Horizontal		Type: Vertical		Conglomerate: Food		Conglomerate: Nonfood	
	No.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Meat processors									
1959	38	25	65	5	13	4	11	4	11
1960	33	22	67	11	33	--	--	--	--
1961	49	36	74	12	24	--	--	1	2
1962	34	25	74	6	18	--	--	3	8
1963	34	16	47	11	33	--	--	7	20
1964	13	7	54	1	8	4	30	1	8
1965	22	8	36	1	5	--	--	13	59
1966	17	9	54	4	23	--	--	4	23
1967	9	5	56	3	33	--	--	1	11
Total	249	153	61	54	22	8	3	34	14
Dairy processors									
1959	55	43	78	6	11	6	11	--	--
1960	48	36	75	3	6	5	10	4	9
1961	56	38	68	6	11	10	17	2	4
1962	48	31	65	6	12	11	23	--	--
1963	32	19	60	3	9	7	22	3	9
1964	59	36	60	7	12	8	14	8	14
1965	68	28	41	23	34	2	3	15	22
1966	74	39	53	15	20	9	12	11	15
1967	67	36	54	10	15	5	7	16	24
Total	507	306	60	79	16	63	12	59	12
Retail grocery stores									
1959	44	37	84	4	9	--	--	3	7
1960	41	31	76	4	10	--	--	6	14
1961	31	17	55	4	13	--	--	10	32
1962	43	24	56	10	23	--	--	9	21
1963	41	25	61	8	20	2	5	6	14
1964	53	40	76	5	9	2	4	6	11
1965	71	57	81	1	1	1	1	12	17
1966	36	21	58	5	14	6	17	4	11
1967	63	49	78	4	6	4	6	6	10
Total	423	301	71	45	11	15	3	62	15
Grand total	1,179	760	65	178	15	86	7	155	13

Meat Industry

Most mergers and acquisitions in the meat processing and packing industry have been within the industry (except for 1965) at the same level of operation. Vertical mergers have been limited by the "Consent Decree," 5/ and the Packers and Stockyard Act, as amended by the Federal Trade Commission Act. Today's "big 4" meatpackers, under administrative agreements falling within the context of this legislation, have not been allowed to integrate vertically. Consequently, horizontal acquisitions have been greater than vertical. Only about one-third of all acquisitions by meat processing and packing firms other than the "big 4" have been vertical. These include feedlots, hatcheries, feed mills, canned meat processing firms, and wholesale distributors. The administrative agreements with the "big 4" also may have influenced the industry's consideration of conglomerate integration. More than 70 percent of the conglomerate acquisitions were made after 1961.

Between 1959 and 1967, there were 249 mergers and acquisitions made by companies in the meat industry. Combined horizontal and vertical mergers were 83 percent of the total, with 61 percent at the same level of operations and 22 percent within the same industry at a different level of operation. Thus, 17 percent of the mergers and acquisitions were of the conglomerate nature.

The meatpacking and processing industry acquired an average of 28 firms per year. Forty-nine percent were made by firms with over $10 million and under $50 million in assets. Those firms having $50 million and over in assets acquired 44 percent. Firms with assets under $10 million or not reporting accounted for the remaining 7 percent. Thus, in meatpacking and processing, the large firms particularly appear to be getting larger by mergers and acquisitions; 93 percent of all mergers of this industry were made by large firms and only 7 percent by small ones.

To gauge the impact of mergers and acquisitions on the total number of firms operating in the industry, a review of the Source Book (Internal Revenue Service) was made (1967 data not yet available) to ascertain the total number of companies reporting each year which were classified according to the categories of industries in this study (table 8).

There was no definite trend in number of firms operating in the meat processing industry. Annual changes in the number of firms in the industry far exceeded the number of mergers and acquisitions.

The 3 largest corporations in the meat industry (assets over $100 million) had 34 percent of total sales reported in the IRS Source Book, 39 percent of total assets, and 21 percent of total profit for the period 1959-66 (table 9). These 3 corporations were responsible for 17 percent of the total number of mergers and acquisitions during this period. 6/

Dairy Industry

The dairy industry made 507 mergers and acquisitions between 1959 and 1967. This number was more than double that of the meat industry and also exceeded the retail grocery industry. Sixty percent of the mergers and acquisitions made by the dairy industry were horizontal--within the same industry. Conglomerate mergers and acquisitions accounted for 24 percent of the total.

Dairy companies made more conglomerate acquisitions than did the other 2 industries. Antitrust policy against horizontal mergers has prevented much of the growth by merger or concentration in

5/ The Palmer-Packer Agreement of 1920 ("Consent Decree") forbade the then "big 5" from entering retailing, and placed them under the perpetual jurisdiction of the U.S. District Court with respect to business practices, combinations or conspiracies which could lead to monopoly control of food products, etc.

6/ In 1966 there were 4 corporations with assets over $100 million. However, the data were prorated and 3 corporations were used.

Table 8.--Corporation income tax returns in three industries, 1959-66

Industry	1959	1960	1961	1962	1963	1964	1965	1966
	Number of returns							
Meat	2,389	2,007	2,849	2,703	2,285	2,377	2,678	2,222
Dairy	4,308	4,248	4,028	4,259	3,614	3,776	3,186	3,545
Retail grocery	8,943	15,328	18,246	20,809	18,211	19,002	21,167	22,154

Source: Source Book, Internal Revenue Service

Table 9.--Concentration of sales, profit, and assets by companies with assets over $100 million, 1959-1966

Industry	1959	1960	1961	1962	1963	1964	1965	1966
	Percent of total							
Retail grocery (3 firms)								
Sales	19	30	26	NA	25	24	23	22
Profit	30	40	40	NA	31	29	29	28
Assets	27	25	25	NA	23	23	23	21
Meat (3 firms)								
Sales	34	36	33	NA	35	35	32	34
Profit	18	21	27	NA	20	23	18	23
Assets	39	40	38	NA	39	39	39	41
Dairy 1/								
Sales	35	35	37	NA	42	43	49	43
Profit	54	57	59	NA	62	62	71	71
Assets	40	41	44	NA	50	53	57	54

1/ Five firms 1st 3 years; 6 firms 4th year; 7 firms 5th and 6th years; 6 firms 7th year.

Compiled from: Source Book, Internal Revenue Service.

the marketing of products. Even so, the largest part of mergers and acquisitions remained horizontal in character.

The dairy industry averaged 56 mergers and acquisitions per year, with nearly half (47 percent) accounted for by the small (under $10 million or not reported) asset size group. Less than half (42 percent) were made by the over $50 million group. The medium sized group was the least active of the three groups within the dairy industry.

The dairy industry had a larger number of firms with over $100 million of assets than did the retail grocery or meat processing and packing industries. However, because the number of firms of this size varied from one year to another, a comparison of mergers and acquisitions by the largest firms could not be made between the dairy industry and the other 2 industries.

Based on IRS data, the number of dairy processors dropped about 20 percent between 1959 and 1966. The numbers of mergers and acquisitions equaled about two-thirds of this change.

Retail Grocery Industry

The retail grocery industry had 423 mergers and acquisitions in 1959-67, second in number to the dairy industry. Eighty-two percent of their mergers were within the same industry, primarily horizontal. Conglomerate mergers accounted for 18 percent.

Retail grocery mergers and acquisitions were more evenly divided than the other 2 industries. The $10 million and under $50 million group accounted for 31 percent, and the group over $50 million asset size, 30 percent. The smaller asset size (under $10 million or not reported) accounted for the remainder, 39 percent.

Based on the IRS data, the retail grocery industry had 3 firms with assets over $100 million. Contrary to the popular idea that the giants of the industry are taking over the small firms, only 3 percent of the total mergers and acquisitions were made by the 3 largest firms. About one-fourth of the sales and assets were held by these 3 firms. They earned 32 percent of the profits in 1959.

With the exception of 1963, the total number of retail grocery firms increased each year. Obviously new firm formation was substantially greater than the number of acquisitions and mergers.

Industry Comparisons

Mergers and acquisitions in these 3 industries combined averaged 131 per year between 1959 and 1967. This included 84 horizontal, 20 vertical, 10 conglomerate food, and 17 conglomerate nonfood mergers and acquisitions. The dairy industry was responsible for 43 percent, the meat processing and packing industry for 21 percent, and the retail grocery industry for 36 percent of total mergers and acquisitions.

Because the rates of acquisition were different, a chi-square test was made to determine if observed differences among the numbers of vertical, horizontal, and conglomerate acquisitions by each industry were random (chance) in character. The chi-square was significant at the .001 percent level, with 4 degrees of freedom. The contingency coefficient was 0.14 out of a possible 0.82. This means that while the differences in type of merger are not attributable to chance, neither can they be explained primarily by industry category.

From all indications, the use of mergers and acquisitions as a method of growth will continue. If horizontal mergers continue to dominate, there will be a gradual increase in market concentration nationally, particularly in specified markets. However, lower stock prices, higher interest rates, and the possibility of changes in tax regulations could slow merger activity substantially for the immediate future.

Selected New Publications

1. "A Location - Logistics System for Feed Firm Management," by Robert E. Lee and James C. Snyder, U.S. Dept. of Agr. Econ. Res. Ser., MRR-867, Jan. 1970.

2. "Regional and Sectoral Analysis of the Wheat-Flour Economy: A Transportation Study," by Bruce H. Wright, U.S. Dept. of Agr., Econ. Res. Ser., MRR-858, Oct. 1969.

3. "Flaxseed Production and Use: Past Trends and Future Prospects," by Clarence A. Moore, University of Peoria, Peoria, Ill., U.S. Dept. of Agr., Econ. Res. Ser., ERS-425, Sept. 1969.

4. "Food Service in the Nation's Schools: A Preliminary Report," by William H. Fruend, U.S. Dept. of Agr., Econ. Res. Ser., ERS-434, Dec. 1969.

5. "Egg Price Relationships, 1962-68--Selected Markets, Trading Levels, Grade, Sizes," by George B. Rogers and Fred L. Faber, U.S. Dept. of Agr., Econ. Res. Ser., Stat. Bul. 445, Jan. 1970.

6. "Diversification and Profitability Among Large Food Processing Firms," by Richard J. Arnould, U.S. Dept. Agr., Econ. Res. Ser., Agr. Econ. Report No. 171, Jan. 1970.

Unless otherwise indicated, items listed are Economic Research Service publications and single copies may be obtained free from the Division of Information, Office of Management Services, U.S. Department of Agriculture, Washington, D.C. 20250.

LIST OF SPECIAL ARTICLES, 1969
in
The Marketing and Transportation Situation

Table 10.--Farm food products: Retail cost, farm value of equivalent quantities sold by producers, byproduct allowance, farm-retail spread, and farmer's share of retail cost, October-December 1969

Product 1/	Farm equivalent	Retail unit	Retail cost	Gross farm value	Byproduct allowance	Net farm value 2/	Farm-retail spread	Farmer's share
			Dollars	Dollars	Dollars	Dollars	Dollars	Percent
Market basket	Farm produce equivalent to products bought per urban wage-earner and clerical-worker household in 1960-61	Average quantities purchased per urban wage-earner and clerical-worker household in 1960-61	1,197.95	---	---	487.39	710.56	41
Meat products			369.28	---	---	205.20	164.08	56
Dairy products			211.88	---	---	103.14	108.74	49
Poultry and eggs			101.45	---	---	59.34	42.11	58
Bakery and cereal products 3/								
All ingredients			174.78	---	---	33.85	140.93	19
Grain			---	30.38	5.45	24.93	---	14
All fruits and vegetables			250.19	---	---	66.65	183.54	27
Fresh fruits and vegetables			125.02	---	---	40.65	84.37	33
Fresh fruits			46.08	---	---	12.49	33.59	27
Fresh vegetables			78.94	---	---	28.16	50.78	36
Processed fruits and vegetables			125.17	---	---	26.00	99.17	21
Fats and oils			38.17	25.38	15.27	10.11	28.06	26
Miscellaneous products			52.20	---	---	9.10	43.10	17
			Cents	Cents	Cents	Cents	Cents	Percent
Beef, Choice grade 4/	2.28 lb. Choice grade cattle	Pound	96.3	62.8	4.8	58.0	38.3	60
Lamb, Choice grade 5/	2.47 lb. lamb	Pound	105.2	67.6	7.3	60.3	44.9	57
Pork 4/	1.97 lb. hogs	Pound	78.9	49.8	3.8	46.0	32.9	58
Butter	Cream and whole milk	Pound	85.6	102.2	39.3	62.9	22.7	73
Cheese, American process	Milk for American cheese	½ pound	48.4	22.7	.8	21.9	26.4	45
Ice cream	Cream, milk, and sugar	½ gallon	82.3	---	---	28.0	54.3	34
Milk, evaporated	Milk for evaporating	14½-ounce can	17.8	8.8	.2	8.6	9.2	48
Milk, fresh								
Home delivered	4.39 lb. Class I milk	½ gallon	63.5	---	---	28.3	35.2	45
Sold in stores	4.39 lb. Class I milk	½ gallon	55.9	---	---	28.3	27.6	51
Chickens, frying, ready-to-cook	1.37 lb. broiler	Pound	42.5	---	---	19.4	23.1	46
Eggs, Grade A large	1.03 dozen	Dozen	69.7	---	---	49.1	20.6	70
Bread, white								
All ingredients	Wheat and other ingredients	Pound	23.3	---	---	3.3	20.0	14
Wheat	.877 lb. wheat	Pound	---	2.9	.4	2.5	---	11
Bread, whole or cracked wheat	.708 lb. wheat	Pound	32.1	---	---	3.2	28.9	10
Cookies, cream filled	.528 lb. wheat	Pound	49.7	---	---	4.5	45.2	9
Corn flakes	2.87 lb. yellow corn	12 ounces	31.5	6/5.8	6/3.4	6/2.4	29.1	8
Flour, white	6.8 lb. wheat	5 pounds	57.9	23.3	3.1	20.2	37.7	35
Apples	1.04 lb. apples	Pound	19.0	---	---	5.6	13.4	29
Grapefruit	1.03 grapefruit	Each	15.3	---	---	3.2	12.1	21
Lemons	1.04 lb. lemons	Pound	32.2	---	---	10.9	21.3	34
Oranges	1.03 doz. oranges	Dozen	84.7	---	---	17.2	67.5	20
Cabbage	1.08 lb. cabbage	Pound	12.8	---	---	4.6	8.2	36
Carrots	1.03 lb. carrots	Pound	19.5	---	---	8.0	11.5	41
Celery	1.08 lb. celery	Pound	18.8	---	---	6.2	12.6	33
Cucumbers	1.09 lb. cucumbers	Pound	26.0	---	---	9.1	16.9	35
Lettuce	1.88 lb. lettuce	Head	35.9	---	---	15.4	20.5	43
Onions	1.06 lb. onions	Pound	13.7	---	---	4.6	9.1	34
Peppers, green	1.09 lb. peppers	Pound	42.2	---	---	19.0	23.2	45
Potatoes	10.42 lb. potatoes	10 pounds	78.8	---	---	20.3	58.5	26
Tomatoes	1.18 lb. tomatoes	Pound	45.1	---	---	19.3	25.8	43
Peaches, canned	1.60 lb. Calif. cling peaches	No. 2½ can	33.9	---	---	6.0	27.9	18
Pears, canned	1.85 lb. pears for canning	No. 2½ can	49.5	---	---	8.8	40.7	18
Beets, canned	1.24 lb. beets for canning	No. 303 can	18.2	---	---	1.2	17.0	7
Corn, canned	2.495 lb. sweet corn	No. 303 can	24.0	---	---	3.0	21.0	12
Peas, canned	.69 lb. peas for canning	No. 303 can	25.1	---	---	3.7	21.4	15
Tomatoes, canned	1.84 lb. tomatoes for canning	No. 303 can	19.9	---	---	3.3	16.6	17
Orange juice, concentrate, frozen	3.77 lb. oranges	6-ounce can	23.8	---	---	11.3	12.5	47
French fried potatoes, frozen	1.38 lb. potatoes	9 ounces	16.4	---	---	2.9	13.5	18
Peas, frozen	.70 lb. peas for freezing	10 ounces	21.0	---	---	3.5	17.5	17
Beans, dried	1.00 lb. Mich. dry beans	Pound	19.4	---	---	6.1	13.3	31
Margarine	Soybeans, cottonseed, and milk	Pound	28.0	18.0	11.0	7.0	21.0	25
Peanut butter	1.33 lb. peanuts	12-ounce jar	46.8	---	---	16.5	30.3	35
Salad and cooking oil	Soybeans, cottonseed, and corn	24-ounce bottle	52.4	41.3	29.9	11.4	41.0	22
Vegetable shortening	Soybeans and cottonseed	3 pounds	82.8	63.7	39.4	24.3	58.5	29
Sugar	Sugar beets and cane	5 pounds	62.4	26.5	1.6	7/24.9	7/37.5	40
Spaghetti with sauce, canned	Wheat, tomatoes, cheese, sugar	15¼-ounce can	17.9	---	---	2.0	15.9	11

1/ Product groups include more items than those listed in this table. For example, in addition to the products listed--Choice beef, lamb, and pork (major products except lard)--the meat products group includes lower grades of beef, the minor edible pork products, and veal.

2/ Gross farm value adjusted to exclude imputed values of byproducts obtained in processing.

3/ For the bakery products group and the individual wheat products, gross farm value, byproduct allowance, net farm value, and farmer's share are based on the market price of wheat received by farmers plus the cost of the marketing certificate to millers. This cost is returned to farmers complying with the Wheat Program.

4/ Data for beef and pork have been extensively revised, for discussion of the revision see article in November 1969 issue of "Marketing and Transportation Situation."

5/ Farm product equivalents for lamb have been revised to allow for loss through pilferage, spoilage, dehydration and refacing and economic losses incurred through selling cuts in a lower-priced form or at special low prices because of quality deterioration.

6/ Based on market price of corn received by farmers; no allowance made for price support payment received by farmers who comply with the Federal Feed Grain Program.

7/ Net farm value adjusted for Government payments to producers was 28.7 cents, farm-retail spread adjusted for Government processor tax was 34.8 cents, farmer's share of retail cost based on adjusted farm value was 46 percent.

Table 11.--Farm food products: Retail cost and farm value, October-December 1969, July-September 1969, October-December 1968 and 1957-59 average

Product 1/	Retail unit	Retail cost: October-December 1969	Retail cost: July-September 1969	Retail cost: October-December 1968	Retail cost: 1957-59 average	Retail cost: Percentage change Oct.-Dec. 1969 from- July-Sept. 1969	Retail cost: Percentage change Oct.-Dec. 1969 from- October-December 1968	Net farm value 2/: October-December 1969	Net farm value 2/: July-September 1969	Net farm value 2/: October-December 1968 3/	Net farm value 2/: 1957-59 average	Net farm value 2/: Percentage change Oct.-Dec. 1969 from- July-Sept. 1969	Net farm value 2/: Percentage change Oct.-Dec. 1969 from- October-December 1968
		Dollars	Dollars	Dollars	Dollars	Percent	Percent	Dollars	Dollars	Dollars	Dollars	Percent	Percent
Market basket	Average quantities purchased per urban wage-earner and clerical-worker household in 1960-61	1,197.95	1,194.08	1,128.49	982.65	0.3	6.2	487.39	3/491.87	434.03	387.87	-0.9	12.3
Meat products		369.28	3/371.80	327.97	285.05	-.7	12.6	205.20	3/217.39	168.59	154.47	-5.6	21.7
Dairy products		211.88	209.03	204.98	173.33	1.4	3.4	103.14	3/101.02	98.26	77.85	2.1	5.0
Poultry and eggs		101.45	96.34	91.58	93.02	5.3	10.8	59.34	56.07	50.50	56.28	5.8	17.5
Bakery and cereal products 4/													
All ingredients		174.78	172.95	170.76	148.40	1.1	2.4	33.85	3/33.16	32.36	30.25	2.1	4.6
Grain		---	---	---	---	---	---	24.93	24.39	24.66	23.40	2.2	1.1
All fruits and vegetables		250.19	254.92	245.79	202.96	-1.9	1.8	66.65	3/65.36	65.75	50.05	2.0	1.4
Fresh fruits and vegetables		125.02	129.63	122.15	91.15	-3.6	2.3	40.65	38.37	40.80	28.70	5.9	-.4
Fresh fruits		46.08	55.02	51.16	36.26	-16.2	-9.9	12.49	15.39	17.58	12.26	-18.8	-29.0
Fresh vegetables		78.94	74.61	70.99	54.89	5.8	11.2	28.16	22.98	23.22	16.44	22.5	21.3
Processed fruits and vegetables		125.17	125.29	123.64	111.81	-.1	1.2	26.00	3/26.99	24.95	21.35	-3.7	4.2
Fats and oils		38.17	37.78	37.70	37.56	1.0	1.2	10.11	9.68	9.40	11.19	4.4	7.6
Miscellaneous products		52.20	3/51.26	49.71	42.33	1.8	5.0	9.10	3/9.19	9.17	7.48	-1.0	-.8
		Cents	Cents	Cents	Cents	Percent	Percent	Cents	Cents	Cents	Cents	Percent	Percent
Beef, Choice grade 5/	Pound	96.3	101.0	3/88.1	74.4	-4.7	9.3	58.0	62.8	57.8	51.3	-7.6	0.3
Lamb, Choice grade	Pound	105.2	104.7	95.0	73.8	.5	10.7	60.3	60.7	54.0	41.9	-.7	11.7
Pork 5/	Pound	78.9	77.6	3/67.3	59.8	1.7	17.2	46.0	46.8	32.6	31.9	-1.7	41.1
Butter	Pound	85.6	84.5	83.8	73.2	1.3	2.1	62.9	62.6	60.3	52.6	.5	4.3
Cheese, American process	½ pound	48.4	47.5	45.1	32.3	1.9	7.3	21.9	21.1	19.9	14.2	3.8	10.1
Ice cream	½ gallon	82.3	81.2	81.1	84.2	1.4	1.5	28.0	27.6	26.4	21.0	1.4	6.1
Milk, evaporated	14½-ounce can	17.8	17.7	17.4	14.5	.6	2.3	8.6	8.6	8.1	6.2	0	6.2
Milk, fresh													
Home delivered	½ gallon	63.5	62.5	61.3	50.8	1.6	3.6	28.3	27.6	27.3	21.9	2.5	3.7
Sold in stores	½ gallon	55.9	55.3	54.6	46.6	1.1	2.4	28.3	27.6	27.3	21.9	2.5	3.7
Chickens, frying, ready-to-cook	Pound	42.5	44.5	39.4	43.5	-4.5	7.9	19.4	22.6	18.1	24.4	-14.2	7.2
Eggs, Grade A large	Dozen	69.7	59.8	61.1	56.2	16.6	14.1	49.1	40.2	39.1	36.1	22.1	25.6
Bread, white													
All ingredients	Pound	23.3	23.0	22.7	18.9	1.3	2.6	3.3	3.3	3.2	3.0	0	3.1
Wheat	Pound	---	---	---	---	---	---	2.5	2.5	2.5	2.4	0	0
Bread, whole or cracked wheat	Pound	32.1	31.5	30.6	---	1.9	4.9	3.2	3/3.1	3.1	---	3.2	3.2
Cookies, cream filled	Pound	49.7	50.1	50.0	---	-.8	-.6	4.5	4.4	4.4	---	2.3	2.3
Corn flakes	12 ounces	31.5	31.4	31.3	24.5	.3	.6	2.4	2.7	2.3	2.4	-11.1	4.3
Flour, white	5 pounds	57.9	58.0	58.0	53.3	-.2	-.2	20.2	19.7	20.0	18.8	2.5	1.0
Apples	Pound	19.0	27.4	21.4	16.1	-30.7	-11.2	5.6	7.4	8.4	5.0	-24.3	-33.3
Grapefruit	Each	15.3	18.2	17.6	10.7	-15.9	-13.1	3.2	5.6	4.2	2.7	-42.9	-23.8
Lemons	Pound	32.2	30.1	25.4	18.4	7.0	26.8	10.9	11.1	6.0	4.2	-1.8	81.7
Oranges	Dozen	84.7	85.4	101.4	66.0	-.8	-16.5	17.2	17.9	31.3	23.2	-3.9	-45.0
Cabbage	Pound	12.8	11.4	12.0	8.7	12.3	6.7	4.6	3.5	3.8	2.4	31.4	21.1
Carrots	Pound	19.5	19.2	15.8	14.5	1.6	23.4	8.0	7.8	5.2	3.7	2.6	53.8
Celery	Pound	18.8	19.9	15.7	15.3	-5.5	19.7	6.2	6.7	4.2	4.4	7.5	47.6
Cucumbers	Pound	26.0	22.2	28.5	---	17.1	-8.8	9.1	7.6	15.7	---	19.7	-42.0
Lettuce	Head	35.9	27.4	29.8	22.6	31.0	20.5	15.4	8.3	10.8	6.0	85.5	42.6
Onions	Pound	13.7	14.7	13.5	10.1	-6.8	1.5	4.6	4.7	3.7	3.4	-2.1	24.3
Peppers, green	Pound	42.2	37.1	35.2	---	13.7	19.9	19.0	11.9	12.7	---	59.7	49.6
Potatoes	10 pounds	78.8	88.0	73.8	58.3	-10.5	6.8	20.3	24.2	20.1	17.8	-16.1	1.0
Tomatoes	Pound	45.1	35.7	41.2	30.1	26.3	9.5	19.3	11.1	15.8	10.6	73.9	22.2
Peaches, canned	No. 2½ can	33.9	34.6	34.9	34.3	-2.0	-2.9	6.0	6.1	6.1	6.1	-1.6	-1.6
Pears, canned	No. 2½ can	49.5	50.2	52.1	---	-1.4	-5.0	8.8	9.5	10.3	---	-7.4	-14.6
Beets, canned	No. 303 can	18.2	18.2	18.2	---	0	0	1.2	1.3	1.4	---	-7.7	-14.3
Corn, canned	No. 303 can	24.0	23.8	24.3	17.8	.8	-1.2	3.0	3.0	3.0	2.4	0	0
Peas, canned	No. 303 can	25.1	25.0	24.8	21.0	.4	1.2	3.7	3.7	3.8	3.1	0	-2.6
Tomatoes, canned	No. 303 can	19.9	19.7	20.0	15.6	1.0	-.5	3.3	3.6	3.7	2.3	-8.3	-10.8
Orange juice, concentrate, frozen	6-ounce can	23.8	24.4	22.4	23.4	-2.5	6.2	11.3	11.3	9.6	8.2	0	17.7
French fried potatoes, frozen	9 ounces	16.4	16.3	15.7	---	.6	4.5	2.9	3.3	2.4	---	-12.1	20.8
Peas, frozen	10 ounces	21.0	21.0	20.6	19.9	0	1.9	3.5	3.6	3.6	3.2	-2.8	-2.8
Beans, dried	Pound	19.4	19.6	19.9	16.3	-1.0	-2.5	6.1	7.1	7.9	6.9	-14.1	-22.8
Margarine	Pound	28.0	27.7	27.7	27.4	1.1	1.1	7.0	6.7	6.3	7.8	4.5	11.1
Peanut butter	12-ounce jar	46.8	45.9	44.7	41.4	2.0	4.7	16.5	15.9	16.0	14.1	3.8	3.1
Salad and cooking oil	24-oz. bottle	52.4	52.2	51.9	---	.4	1.0	11.4	10.9	10.8	---	4.6	5.6
Vegetable shortening	3 pounds	82.8	82.0	83.0	90.4	1.0	-.2	24.3	23.3	22.4	28.2	4.3	8.5
Sugar	5 pounds	62.4	62.6	61.1	54.5	-.3	2.1	24.9	3/25.2	25.1	20.2	-1.2	-.8
Spaghetti with sauce, canned	15¼-ounce can	17.9	17.5	17.0	---	2.3	5.3	2.0	2.1	2.1	---	-4.8	-4.8

1/ Product groups include more items than those listed in this table. For example, in addition to the products listed--Choice beef, lamb, and pork (major products except lard)--the meat products group includes lower grades of beef, the minor edible pork products, and veal.

2/ Gross farm value adjusted to exclude imputed value of byproducts obtained in processing.

3/ Many net farm value figures for October-December 1968 have been revised; figures in other columns revised as indicated.

4/ For the bakery products group and the individual wheat products, the net farm value is based on the market price of wheat received by farmers plus the cost of the marketing certificate to millers. This cost equals the value of the domestic marketing certificate received by farmers complying fully with the Wheat Program.

5/ Data for beef and pork have been extensively revised. For discussion of the revision see article in November 1969 issue of "Marketing and Transportation Situation."

Table 12.--Farm food products: Farm-retail spread and farmer's share of the retail cost, October-December 1969, July-September 1969, October-December 1968 and 1957-59 average

Product 1/	Retail unit	Farm-retail spread 2/: October-December 1969	Farm-retail spread 2/: July-September 1969	Farm-retail spread 2/: October-December 1968 3/	Farm-retail spread 2/: 1957-59 average	Percentage change Oct.-Dec. 1969 from-: July-September 1969	Percentage change Oct.-Dec. 1969 from-: October-December 1968	Farmer's share: October-December 1969	Farmer's share: July-September 1969	Farmer's share: October-December 1968	Farmer's share: 1957-59 average
		Dollars	Dollars	Dollars	Dollars	Percent	Percent	Percent	Percent	Percent	Percent
Market basket	Average quantities purchased per urban wage-earner and clerical-worker household in 1960-61	710.56	3/702.21	694.46	594.78	1.2	2.3	41	41	38	39
Meat products		164.08	3/154.41	159.38	130.58	6.3	2.9	56	58	51	54
Dairy products		108.74	3/108.01	106.72	95.48	.7	1.9	49	48	48	45
Poultry and eggs		42.11	40.27	41.08	36.74	4.6	2.5	58	58	55	61
Bakery and cereal products 4/											
All ingredients		140.93	3/139.79	138.40	117.85	.8	1.8	19	19	19	21
Grain		---	---	---	---	---	---	14	14	14	16
All fruits and vegetables		183.54	3/189.56	180.04	152.91	-3.2	1.9	27	26	3/27	25
Fresh fruits and vegetables		84.37	91.26	81.35	62.45	-7.5	3.7	32	30	3/33	31
Fresh fruits		33.59	39.63	33.58	24.00	-15.2	5/	27	28	3/34	34
Fresh vegetables		50.78	51.63	47.77	38.45	-1.6	6.3	36	31	33	30
Processed fruits and vegetables		99.17	3/98.30	98.69	90.46	.9	.5	21	22	20	19
Fats and oils		28.06	28.10	28.30	26.37	-.1	-.8	26	26	25	30
Miscellaneous products		43.10	3/42.07	40.54	38.45	2.4	6.3	17	18	3/18	18
		Cents	Cents	Cents	Cents	Percent	Percent	Percent	Percent	Percent	Percent
Beef, Choice grade 6/	Pound	38.3	38.2	30.3	26.1	.3	26.4	60	62	3/66	66
Lamb, Choice grade	Pound	44.9	44.0	41.0	31.9	2.0	9.5	57	58	3/57	57
Pork 6/	Pound	32.9	30.8	34.7	28.0	6.8	-5.2	58	60	48	53
Butter	Pound	22.7	21.9	23.5	20.6	3.7	-3.4	73	74	72	72
Cheese, American process	½ pound	26.4	26.4	25.2	18.1	0	4.8	45	44	44	44
Ice cream	½ gallon	54.3	53.6	54.7	63.2	1.3	-.7	34	34	33	25
Milk, evaporated	14½-ounce can	9.2	9.1	9.3	8.3	1.1	-1.1	48	49	47	43
Milk, fresh											
Home delivered	½ gallon	35.2	34.9	34.0	28.9	.9	3.5	45	44	45	43
Sold in stores	½ gallon	27.6	27.7	27.3	24.7	-.4	1.1	51	50	50	47
Chickens, frying, ready-to-cook	Pound	23.1	21.9	21.3	19.1	5.5	8.5	46	51	46	56
Eggs, Grade A large	Dozen	20.6	19.6	22.0	20.1	5.1	-6.4	70	67	64	64
Bread, white											
All ingredients	Pound	20.0	19.7	19.5	15.9	1.5	2.6	14	14	14	16
Wheat	Pound	---	---	---	---	---	---	11	11	11	13
Bread, whole or cracked wheat	Pound	28.9	3/28.4	27.5	---	1.8	5.1	10	10	10	---
Cookies, cream filled	Pound	45.2	45.7	45.6	---	-1.1	-.9	9	9	9	---
Corn flakes	12 ounces	29.1	28.7	29.0	22.1	1.4	.3	8	9	7	10
Flour, white	5 pounds	37.7	38.3	38.0	34.5	-1.6	-.8	35	34	34	35
Apples	Pound	13.4	20.0	13.0	11.1	-33.0	3.1	29	27	39	31
Grapefruit	Each	12.1	12.6	13.4	8.0	-4.0	-9.7	21	31	3/24	25
Lemons	Pound	21.3	19.0	19.4	14.2	12.1	9.8	34	37	24	23
Oranges	Dozen	67.5	67.5	70.1	42.8	0	-3.7	20	21	3/31	35
Cabbage	Pound	8.2	7.9	8.2	6.3	3.8	0	36	31	32	28
Carrots	Pound	11.5	11.4	10.6	10.8	.9	8.5	41	41	33	26
Celery	Pound	12.6	13.2	11.5	10.9	-4.5	9.6	33	34	27	29
Cucumbers	Pound	16.9	14.6	12.8	---	15.8	32.0	35	34	55	---
Lettuce	Head	20.5	19.1	19.0	16.6	7.3	7.9	43	30	36	27
Onions	Pound	9.1	10.0	9.8	6.7	-9.0	-7.1	34	32	27	34
Peppers, green	Pound	23.2	25.2	22.5	---	-7.9	3.1	45	32	36	---
Potatoes	10 pounds	58.5	63.8	53.7	40.5	-8.3	8.9	26	28	27	31
Tomatoes	Pound	25.8	24.6	25.4	19.5	4.9	1.6	43	31	38	35
Peaches, canned	No. 2½ can	27.9	28.5	28.8	28.2	-2.1	3.1	18	18	17	18
Pears, canned	No. 2½ can	40.7	40.7	41.8	---	0	-2.6	18	19	20	---
Beets, canned	No. 303 can	17.0	16.9	16.8	---	.6	1.2	7	7	8	---
Corn, canned	No. 303 can	24.0	20.8	21.3	15.4	15.4	12.7	12	13	12	13
Peas, canned	No. 303 can	21.4	21.3	21.0	17.9	.5	1.9	15	15	15	15
Tomatoes, canned	No. 303 can	16.6	16.1	16.3	13.3	3.1	1.8	17	18	18	15
Orange juice, concentrate, frozen	6-ounce can	12.5	13.1	12.8	15.2	-4.6	-2.3	47	46	43	35
French fried potatoes, frozen	9 ounces	13.5	13.0	13.3	---	3.8	1.5	18	20	15	---
Peas, frozen	10 ounces	17.5	17.4	17.0	16.7	.6	2.9	17	17	17	16
Beans, dried	Pound	13.3	12.5	12.0	9.4	6.4	10.8	31	36	40	42
Margarine	Pound	21.0	21.0	21.4	19.6	0	-1.9	25	24	23	28
Peanut butter	12-ounce jar	30.3	30.0	28.7	27.3	1.0	5.6	35	35	36	34
Salad and cooking oil	24-oz. bottle	41.0	41.3	41.1	---	-.7	-.4	22	21	21	---
Vegetable shortening	3 pounds	58.5	58.7	60.6	62.2	-.4	-3.5	29	28	27	31
Sugar	5 pounds	37.5	3/37.4	36.0	34.3	.3	4.2	40	3/40	41	37
Spaghetti with sauce, canned	15¼-ounce can	15.9	15.4	14.9	---	3.2	6.7	11	12	12	---

1/ Product groups include more items than those listed in this table. For example, in addition to the products listed--Choice beef, lamb, and pork (major products except lard)--the meat products group includes lower grades of beef, the minor edible pork products, and veal.

2/ The farm-retail spread is the difference between the retail cost and the net farm value shown in table on opposite page.

3/ Many farm-retail spread figures for October-December 1968 have been revised; figures in other columns revised as indicated.

4/ For the bakery products group and the individual wheat products, the farmer's share is based on the market price of wheat received by farmers plus the cost of the marketing certificate to millers. This cost is returned to farmers complying with the Wheat Program.

5/ Less than 0.05 percent.

6/ Data for beef and pork have been extensively revised. For discussion of the revision see article in November issue of "Marketing and Transportation Situation."

Table 13.--Farm food products: Retail cost, farm value of equivalent quantities sold by producers, byproduct allowance, farm-retail spread, and farmer's share of retail cost, annual 1968

Product 1/	Farm equivalent	Retail unit	Retail cost	Gross farm value	Byproduct allowance	Net farm value 2/	Farm-retail spread	Farmer's share
			Dollars	Dollars	Dollars	Dollars	Dollars	Percent
Market basket	Farm produce equivalent to products bought per urban wage-earner and clerical-worker household in 1960-61	Average quantities purchased per urban wage-earner and clerical-worker household in 1960-61	1,117.80	--	--	435.07	682.73	39
Meat products			324.58	--	--	171.86	152.72	53
Dairy products			201.96	--	--	96.68	105.28	48
Poultry and eggs			85.97	--	--	46.95	39.02	55
Bakery and cereal products 3/								
All ingredients			169.61	--	--	33.06	136.55	19
Grain			--	30.47	5.09	25.38	--	15
All fruits and vegetables			248.61	--	--	67.60	181.01	27
Fresh fruits and vegetables			125.65	--	--	42.56	83.09	34
Fresh fruits			53.00	--	--	18.72	34.28	35
Fresh vegetables			72.65	--	--	23.84	48.81	33
Processed fruits and vegetables			122.96	--	--	25.04	97.92	20
Fats and oils			37.88	27.44	17.52	9.92	27.96	26
Miscellaneous products			49.19	--	--	9.00	40.19	18
			Cents	Cents	Cents	Cents	Cents	Percent
Beef, Choice grade 4/	2.28 lb. Choice grade cattle	Pound	86.6	60.5	3.8	56.7	29.9	65
Lamb, Choice grade 5/	2.45 lb. lamb	Pound	93.6	60.0	6.4	53.6	40.0	57
Pork 4/	1.97 lb. hogs	Pound	67.4	36.7	2.2	34.5	32.9	51
Butter	Cream and whole milk	Pound	83.6	96.7	36.2	60.5	23.1	72
Cheese, American process	Milk for American cheese	½ pound	44.4	20.3	.8	19.5	24.9	44
Ice cream	Cream, milk, and sugar	½ gallon	80.7	--	--	26.3	54.4	33
Milk, evaporated	Milk for evaporating	14½-ounce can	17.1	8.4	.2	8.2	8.9	48
Milk, fresh								
Home delivered	4.39 lb. Class I milk	½ gallon	60.0	--	--	26.6	33.4	44
Sold in stores	4.39 lb. Class I milk	½ gallon	53.7	--	--	26.6	27.1	50
Chickens, frying, ready-to-cook	1.37 lb. broiler	Pound	39.8	--	--	19.5	20.3	49
Eggs, Grade A large	1.03 dozen	Dozen	52.9	--	--	32.4	20.5	61
Bread, white								
All ingredients	Wheat and other ingredients	Pound	22.4	--	--	3.3	19.1	15
Wheat	.877 lb. wheat	Pound	--	2.9	.3	2.6	--	12
Bread, whole or cracked wheat	.708 lb. wheat	Pound	30.0	--	--	3.2	26.8	11
Cookies, cream filled	.528 lb. wheat	Pound	50.3	--	--	4.4	45.9	9
Corn flakes	2.87 lb. yellow corn	12 ounces	31.2	6/5.5	6/3.1	6/2.4	28.8	8
Flour, white	6.8 lb. wheat	5 pounds	58.4	23.4	2.8	20.6	37.8	35
Apples	1.04 lb. apples	Pound	24.0	--	--	8.9	15.1	37
Grapefruit	1.03 grapefruit	Each	16.4	--	--	4.4	12.0	27
Lemons	1.04 lb. lemons	Pound	26.0	--	--	7.1	18.9	27
Oranges	1.03 doz. oranges	Dozen	96.6	--	--	31.0	65.6	32
Cabbage	1.08 lb. cabbage	Pound	12.0	--	--	3.7	8.3	31
Carrots	1.03 lb. carrots	Pound	18.7	--	--	6.5	12.2	35
Celery	1.08 lb. celery	Pound	16.8	--	--	5.1	11.7	30
Cucumbers	1.09 lb. cucumbers	Pound	28.2	--	--	11.8	16.4	42
Lettuce	1.88 lb. lettuce	Head	27.5	--	--	9.3	18.2	34
Onions	1.06 lb. onions	Pound	15.0	--	--	5.3	9.7	35
Peppers, green	1.09 lb. peppers	Pound	39.6	--	--	14.5	25.1	37
Potatoes	10.42 lb. potatoes	10 pounds	76.2	--	--	21.2	55.0	28
Tomatoes	1.18 lb. tomatoes	Pound	40.5	--	--	15.6	24.9	39
Peaches, canned	1.60 lb. Calif. cling peaches	No. 2½ can	35.2	--	--	6.4	28.8	18
Pears, canned	1.85 lb. pears for canning	No. 2½ can	53.6	--	--	13.8	39.8	26
Beets, canned	1.24 lb. beets for canning	No. 303 can	18.1	--	--	1.3	16.8	7
Corn, canned	2.495 lb. sweet corn	No. 303 can	24.3	--	--	3.0	21.3	12
Peas, canned	.69 lb. peas for canning	No. 303 can	24.9	--	--	3.8	21.1	15
Tomatoes, canned	1.84 lb. tomatoes for canning	No. 303 can	20.4	--	--	3.8	16.6	19
Orange juice, concentrate, frozen	3.15 lb. oranges	6-ounce can	21.2	--	--	9.0	12.2	42
French fried potatoes, frozen	1.38 lb. potatoes	9 ounces	15.4	--	--	2.1	13.3	14
Peas, frozen	.70 lb. peas for freezing	10 ounces	20.7	--	--	3.7	17.0	18
Beans, dried	1.00 lb. Mich. dry beans	Pound	19.6	--	--	8.4	11.2	43
Margarine	Soybeans, cottonseed, and milk	Pound	27.9	19.8	13.0	6.8	21.1	24
Peanut butter	1.33 lb. peanuts	12-ounce jar	44.0	--	--	15.4	28.6	35
Salad and cooking oil	Soybeans, cottonseed, and corn	24-ounce bottle	52.2	44.0	32.4	11.6	40.6	22
Vegetable shortening	Soybeans and cottonseed	3 pounds	83.9	70.9	46.7	24.2	59.7	29
Sugar	Sugar beets and cane	5 pounds	60.9	26.2	1.5	7/24.7	7/36.2	7/41
Spaghetti with sauce, canned	Wheat, tomatoes, cheese, sugar	15¼-ounce can	16.8	--	--	2.1	14.7	12

1/ Product groups include more items than those listed in this table. For example, in addition to the products listed--Choice beef, lamb, and pork (major products except lard)--the meat products group includes lower grades of beef, the minor edible pork products, and veal. 2/ Gross farm value adjusted to exclude imputed values of byproducts obtained in processing. 3/ For the bakery products group and the individual wheat products, gross farm value, byproduct allowance, net farm value and farmer's share are based on the market price of wheat received by farmers plus the cost of the marketing certificate to millers. This cost is returned to farmers complying with the Wheat Program. 4/ Data for beef and pork have been extensively revised. For discussion of the revision see article in November 1969 issue of "Marketing and Transportation Situation." 5/ Farm product equivalents for lamb have been revised to allow for loss through pilferage, spoilage, dehydration and refacing and economic losses incurred through selling cuts in a lower-priced form or special low prices because of quality deterioration. 6/ Based on the market price of corn received by farmers; no allowance made for price support payment received by farmers who comply with the Federal Feed Grain Program. 7/ Net farm value adjusted for Government payments to producers was 28.4 cents, farm-retail spread adjusted for Government processors tax was 33.5 cents, farmer's share of retail cost based on adjusted farm value was 47 percent.

Table 14.--Farm food products: Retail cost, farm value of equivalent quantities sold by producers, byproduct allowance, farm-retail spread, and farmer's share of retail cost, annual 1969

Product 1/	Farm equivalent	Retail unit	Retail cost	Gross farm value	Byproduct allowance	Net farm value 2/	Farm-retail spread	Farmer's share
			Dollars	Dollars	Dollars	Dollars	Dollars	Percent
Market basket	Farm produce equivalent to products bought per urban wage-earner and clerical-worker household in 1960-61	Average quantities purchased per urban wage-earner and clerical-worker household in 1960-61	1,172.87	--	--	477.21	695.66	41
Meat products			355.79	--	--	201.60	154.19	57
Dairy products			208.27	--	--	100.78	107.49	48
Poultry and eggs			95.45	--	--	54.86	40.59	57
Bakery and cereal products 3/								
All ingredients			172.77	--	--	33.47	139.30	19
Grain			--	29.98	5.22	24.76	--	14
All fruits and vegetables			251.55	--	--	67.22	184.33	27
Fresh fruits and vegetables			126.73	--	--	40.61	86.12	33
Fresh fruits			50.38	--	--	15.39	34.99	31
Fresh vegetables			76.35	--	--	25.22	51.13	33
Processed fruits and vegetables			124.82	--	--	26.61	98.21	21
Fats and oils			37.89	26.83	16.76	10.07	27.82	27
Miscellaneous products			51.15	--	--	9.21	41.94	18
			Cents	Cents	Cents	Cents	Cents	Percent
Beef, Choice grade 4/	2.28 lb. Choice grade cattle	Pound	96.3	66.9	4.7	62.2	34.1	65
Lamb, Choice grade 5/	2.45 lb. lamb	Pound	101.8	66.9	7.6	59.3	42.5	58
Pork 4/	1.97 lb. hogs	Pound	74.3	45.5	3.2	42.3	32.0	57
Butter	Cream and whole milk	Pound	84.6	100.7	38.8	61.9	22.7	73
Cheese, American process	Milk for American cheese	½ pound	47.0	21.8	.8	21.0	26.0	45
Ice cream	Cream, milk, and sugar	½ gallon	81.3	--	--	27.4	53.9	34
Milk, evaporated	Milk for evaporating	14½-ounce can	17.6	8.8	.2	8.6	9.0	49
Milk, fresh								
Home delivered	4.39 lb. Class I milk	½ gallon	62.3	--	--	27.6	34.7	44
Sold in stores	4.39 lb. Class I milk	½ gallon	55.1	--	--	27.6	27.5	50
Chickens, frying, ready-to-cook	1.37 lb. broiler	Pound	42.2	--	--	20.7	21.5	49
Eggs, Grade A large	1.03 dozen	Dozen	62.1	--	--	41.3	20.8	67
Bread, white								
All ingredients	Wheat and other ingredients	Pound	23.0	--	--	3.3	19.7	14
Wheat	.877 lb. wheat	Pound	--	2.9	.4	2.5	--	11
Bread, whole or cracked wheat	.708 lb. wheat	Pound	31.4	--	--	3.2	28.2	10
Cookies, cream filled	.528 lb. wheat	Pound	49.9	--	--	4.5	45.4	9
Corn flakes	2.87 lb. yellow corn	12 ounces	31.3	6/5.9	6/3.3	6/2.6	28.7	8
Flour, white	6.8 lb. wheat	5 pounds	58.0	22.8	2.7	20.1	37.9	35
Apples	1.04 lb. apples	Pound	23.9	--	--	8.2	15.7	34
Grapefruit	1.03 grapefruit	Each	15.2	--	--	3.4	11.8	22
Lemons	1.04 lb. lemons	Pound	29.5	--	--	10.0	19.5	34
Oranges	1.03 doz. oranges	Dozen	83.8	--	--	18.7	65.1	22
Cabbage	1.08 lb. cabbage	Pound	12.4	--	--	3.7	8.7	30
Carrots	1.03 lb. carrots	Pound	17.9	--	--	6.5	11.4	36
Celery	1.08 lb. celery	Pound	18.6	--	--	6.3	12.3	34
Cucumbers	1.09 lb. cucumbers	Pound	27.6	--	--	9.3	18.3	34
Lettuce	1.88 lb. lettuce	Head	31.1	--	--	11.5	19.6	37
Onions	1.06 lb. onions	Pound	13.7	--	--	3.9	9.8	28
Peppers, green	1.09 lb. peppers	Pound	41.8	--	--	15.9	25.9	38
Potatoes	10.42 lb. potatoes	10 pounds	81.6	--	--	24.0	57.6	29
Tomatoes	1.18 lb. tomatoes	Pound	42.1	--	--	15.6	26.5	37
Peaches, canned	1.60 lb. Calif. cling peaches	No. 2½ can	34.4	--	--	6.1	28.3	18
Pears, canned	1.85 lb. pears for canning	No. 2½ can	50.3	--	--	9.7	40.6	19
Beets, canned	1.24 lb. beets for canning	No. 303 can	18.2	--	--	1.3	16.9	7
Corn, canned	2.495 lb. sweet corn	No. 303 can	23.8	--	--	3.0	20.8	13
Peas, canned	.69 lb. peas for canning	No. 303 can	24.9	--	--	3.8	21.1	15
Tomatoes, canned	1.84 lb. tomatoes for canning	No. 303 can	19.7	--	--	3.6	16.1	18
Orange juice, concentrate, frozen	3.74 lb. oranges	6-ounce can	24.1	--	--	10.9	13.2	45
French fried potatoes, frozen	1.38 lb. potatoes	9 ounces	16.2	--	--	3.1	13.1	19
Peas, frozen	.70 lb. peas for freezing	10 ounces	21.0	--	--	3.6	17.4	17
Beans, dried	1.00 lb. Mich. dry beans	Pound	19.6	--	--	7.6	12.0	39
Margarine	Soybeans, cottonseed, and milk	Pound	27.8	19.2	12.2	7.0	20.8	25
Peanut butter	1.33 lb. peanuts	12-ounce jar	45.9	--	--	16.0	29.9	35
Salad and cooking oil	Soybeans, cottonseed, and corn	24-ounce bottle	52.2	43.6	32.1	11.5	40.7	22
Vegetable shortening	Soybeans and cottonseed	3 pounds	82.6	68.1	43.7	24.4	58.2	30
Sugar	Sugar beets and cane	5 pounds	62.0	26.7	1.6	7/25.1	7/36.9	7/40
Spaghetti with sauce, canned	Wheat, tomatoes, cheese, sugar	15¼-ounce can	17.5	--	--	2.1	15.4	12

1/ Product groups include more items than those listed in this table. For example, in addition to the products listed--Choice beef, lamb, and pork (major products except lard)--the meat products group include lower grades of beef, the minor edible pork products, and veal. 2/ Gross farm value adjusted to exclude imputed values of byproducts obtained in processing. 3/ For the bakery products group and the individual wheat products, gross farm value, byproduct allowance, net farm value, and farmer's share are based on the market price of wheat received by farmers plus the cost of the marketing certificate to millers. This cost is returned to farmers complying with the Wheat Program. 4/ Data for beef and pork have been extensively revised, for discussion of the revision see article in November 1969 issue of "Marketing and Transportation Situation." 5/ Farm product equivalents for lamb have been revised to allow for loss through pilferage, spoilage, dehydration and refacing and economic losses incurred through selling cuts in a lower-priced form or at special low prices because of quality deterioration. 6/ Based on market price of corn received by farmers; no allowance made for price support payment received by farmers who comply with the Federal Feed Grain Program. 7/ Net farm value adjusted for Government payments to producers was 28.9 cents, farm-retail spread adjusted for Government processor tax was 34.2 cents, farmer's share of retail cost based on adjusted farm value was 47 percent.

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